Milk Salt Agar Base

Milk Salt Agar Base is used for selective isolation and cultivation of Staphylococci.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptic digest of animal tissue</td>
<td>5.000</td>
</tr>
<tr>
<td>Beef extract</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>65.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 88 grams in 900 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 60°C. Aseptically add 10 ml of sterile skim milk (10% w/v skim milk powder solution) to every 90 ml of basal medium. Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

Milk Salt Agar is used for selective isolation and cultivation of Staphylococci. Koch reported that only Staphylococci could grow on agar media containing 7.5% sodium chloride (1). Chapman in his modification of the Kochs medium utilized this property for making the medium selective by the high salt content (2, 3).

This is a simple but nutritious medium. Beef extract, peptic digest of animal tissue and skim milk supply essential nutrients mainly nitrogenous and carbonaceous compounds including trace ingredients to Staphylococci. Sodium chloride at a concentration of 6.5% makes the medium highly selective as majority of the contaminating organisms are inhibited by the high salt concentration, but Staphylococci are able to tolerate the high sodium chloride concentration.

**Quality Control**

**Appearance**

Off-white to yellow homogeneous free flowing powder

**Gelling**

Firm, comparable with 1.5% Agar gel

**Colour and Clarity of prepared medium**

Yellow coloured opaque gel forms in Petri plates after addition of 10% v/v sterile milk

**Reaction**

Reaction of the basal medium (8.8gm in 90 ml distilled water) at 25°C. pH : 7.4±0.2

**pH**

7.20-7.60

**Cultural Response**

M661: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td>0%</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
</tr>
</tbody>
</table>

**Storage and Shelf Life**

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Please refer disclaimer Overleaf.
Reference

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.